Modifications to Receiver Daughter Board

The original Serial Receiver Daughter Board used a single stage discrete equalizer to compensate for the effects of the cable in the system. The parts were optimized to work for a 100’ LMR-200 cable, although each Receiver Board was tested to work at 10’ and 200’ of LMR-200. The equalizer consisted of a RLC circuit followed by a limiting amplifier (IVA05208), unfortunately the limiting amplifier is no longer manufactured and instead of trying to find enough parts in surplus we searched for a replacement and discovered that Maxim has started manufacturing an adaptive equalizer that is well suited for this task. The new part has the advantage of being able to adapt to different cables and is actually less expensive than the former amplifier. The figures below compares the input and output of each type of equalizer.

![Figure 1 - 100’ of LMR-200 Cable and Discrete Equalizer](image1)

![Figure 2 - 100’ of LMR-200 Cable and Adaptive Equalizer](image2)
Figure 3 - 200' of LMR-200 Cable and Discrete Equalizer

Figure 4 - 200' of LMR-200 Cable and Adaptive Equalizer
Figure 5 - 300' of LMR-200 Cable and Adaptive Equalizer